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V. *Account of crystallized Oxalic Acid produced from the Boletus sulphureus.* By Robert Scott, M.D. of Dublin. Communicated by Dawson Turner, Esq. F.R.S. A.S. and L.S.

Read May 1, 1804.

I MET with the *Boletus sulphureus* about the middle of August, in a young state, growing on the trunks of old decaying cherry trees. Having preserved a specimen, I after some time found a singular crystallization on the upper surface, and which may be observed to have ruptured the investing coats of that surface. These needle-like crystals were formed on the fungus, in consequence of its drying only, as none were observable while it remained on the tree. That they are pure oxalic acid, or at least combined with a very small portion of vegetable fixed alkali, is evident from the taste, and by the tests of solutions of lime and barytes. The fungus, after being freed from the saline matter, was distilled in an earthen retort, during which a quantity of watery fluid came over—a thick tar-like extractive matter—carbonic acid gas—carbonated hydrogenous gas—and lastly, hydrogenous gas. It was not observed whether azotic gas was among the first products; but it probably was, as the watery fluid which came over in distillation contained ammonia, which appeared by the odour and the fumes that were exhibited on holding a paper moistened with diluted muriatic acid over a mixture of the former with quick lime. The coaly residuum, when burnt in the open air, afforded by lixiviation some vegetable fixed alkali.

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That the oxalic acid is produced or evolved in the course of vegetation in many plants of the higher ranks is well known, but that it should be found in any of the fungus tribe, (which have hitherto been supposed to produce only an ammoniacal salt, and on that account considered as a link between vegetables and animals,) is a curious, and, I believe, an isolated fact. How far the production of oxalic acid in this fungus might depend on its place of growth, or soil, as it may be termed, I cannot say; but it is worth while to repeat the observation on other fungi similarly situated.

I have sent to you a specimen of the Boletus, and a portion of the crystallized acid produced from it, in order that you may communicate them to the Linnean Society.